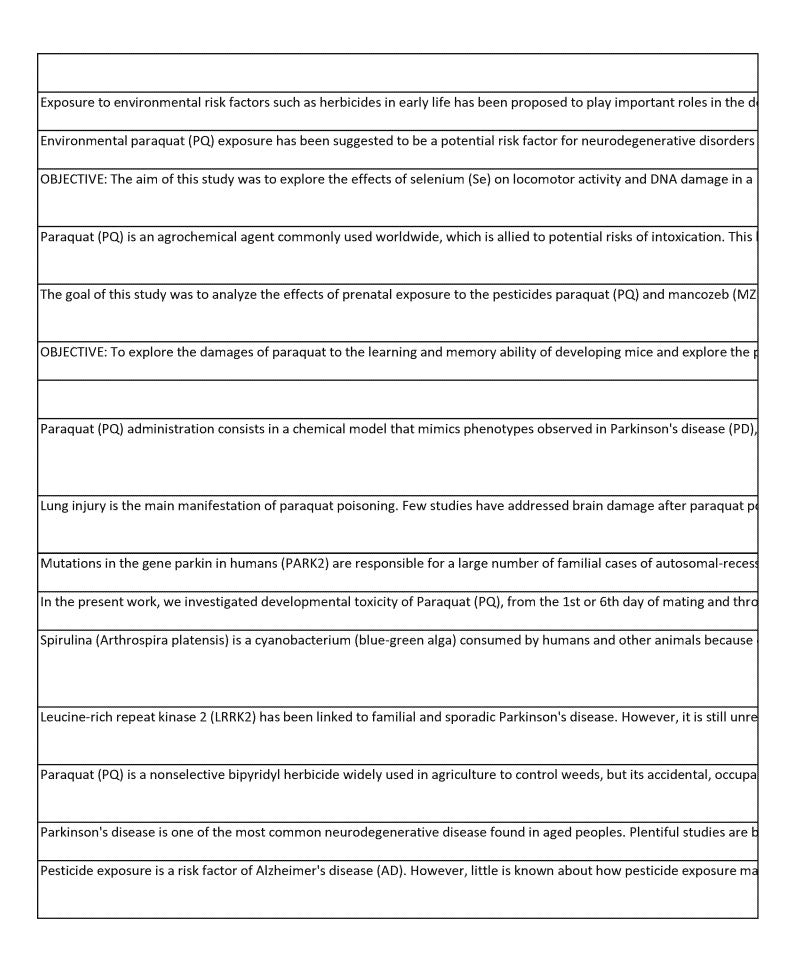


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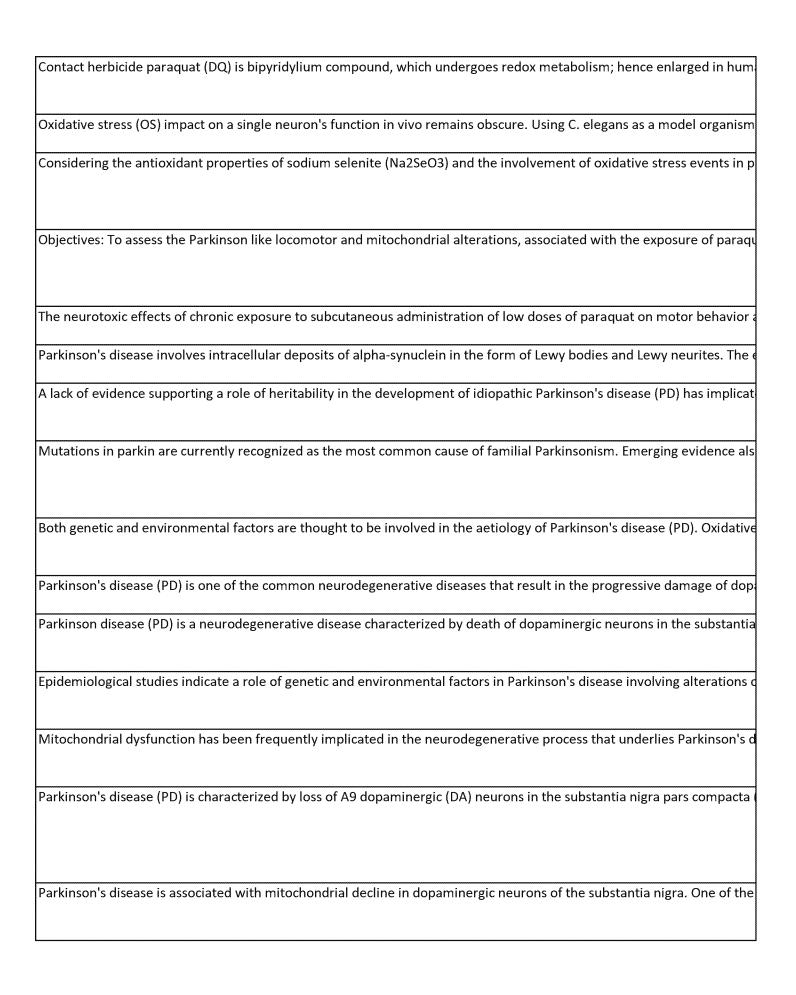


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Paraquat (PQ) and maneb (MB) are able to induce neurotoxic effects by promoting alpha-synuclein (alpha-syn) aggregate Epidemiological studies have suggested a correlation of pesticides and Parkinson's disease (PD) while genetic and bioche Oxidative stress (OS) stimulates autophagy in different cellular systems, but it remains controversial if this rule can be ge $\,$ Currently, most neurotoxicological investigations are still conducted using various animal models (e.g. chickens, rodents) We examined effects of three structurally related pyridinium compounds, 1-methyl-4-phenylpyridinium (MPP+), paraqua Apoptosis plays an important role in neurodegeneration, although the mechanisms and mediators in the brain are largel Paraguat was taken up by PC12 cells in a carrier-mediated, saturable manner. When PC12 cells were permeabilized with Although paraquat has been shown to cause oxidative damage to neuronal cells, little is known about its effect on glial  $\epsilon$ Drugs and certain environmental toxins may be responsible for the pathogenesis of Parkinson's disease. We have used p The effect of the induction of i-NOS in primary glial cultures was studied with respect to the protein levels of reactive oxy Paraquat (PQ) is a well described pneumotoxicant that produces toxicity by redox cycling with cellular diaphorases, there The excitatory amino acid glutamate serves important neurologic functions, but overactivation of its N-methyl-D-asparta Various structurally unrelated chemicals [2,5 hexandione, acrylamide, organophosphates like mipafox, beta,beta iminodi Recent etiological study in twins (Tanner et al. 1999) strongly suggests that environmental factors play an important role Recent studies have demonstrated that inhibition of the proteasome, an enzyme responsible for the majority of intracell Treatment of neuroblastoma cells with the copper chelator triethylene tetramine tetrahydrochloride induced intracellula SH-SY5Y cells transfected with the enzymatically inactive Cu,Zn superoxide dismutase mutant H46R were more resistant Using the inactivation of mitochondrial and cytosolic aconitases as markers of compartment-specific superoxide (O2(-)) qOxidative stress caused by an increase in free radicals plays an important role in neuronal death. We investigated the eff PURPOSE: In a recent study, it was demonstrated that docosahexaenoic acid (DHA) promotes the survival of retinal photo Oxidative stress has been discussed as crucial mechanism of neuronal cell death in the adult brain. However, it was not c Oxidative stress is supposed to play an important role in demyelinating diseases. Oligodendrocytes are the myelin-formi

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